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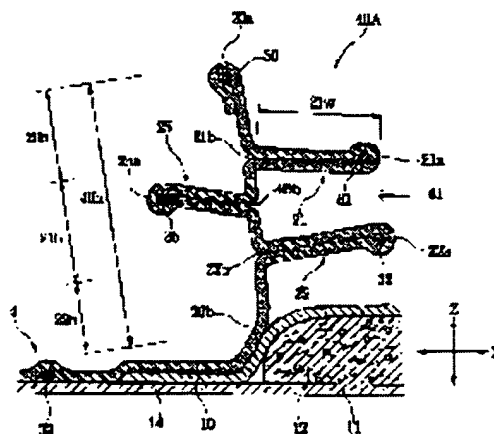
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## (54) ABSORPTIVE ARTICLE HAVING LEAKAGE PREVENTING CUFF

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To prevent the leak of a liquefied matter and the rash and chapping of the skin by fixing one edge of a leak preventing cuff to an article body, arranging an elastic member for raising the leak preventing cuff on the free other edge, and providing a flap formed by folding and connecting a sheet between both edges protrusively toward the center side.

**SOLUTION:** A folded hydrophobic sheet 14 is arranged on both sides 4 of a top sheet 10 symmetrically to the centerline to form a leak preventing cuff 40A. The side 4 of the hydrophobic sheet 14 is fixed onto the top sheet 10 to form a fixed end 20b forming the raising fulcrum of the leak preventing cuff 40A. An elastic member 30 is arranged in the extended state on the opposite free end 20a of the hydrophobic sheet 14. Further, each flap 21, 22 is formed between the free end 20a and the fixed end 20b by protruding the hydrophobic sheet 14 in the central X-direction at each prescribed interval 20h, 21h from the free end 20a. According to this, the flow velocity of a liquefied matter is delayed, and the contact area of the article with the skin is reduced.



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## CLAIMS

[Claim(s)]

[Claim 1] The liquid permeability top sheet turned to a liquid receiving side, and the backseat turned outside, The body which has the absorption core pinched between said top sheets and said backseats, In the absorptivity goods which have the leakproof cuff of the pair arranged at the both sides of the cross direction which extends in the longitudinal direction of a body in the liquid receiving side of said body, and intersects perpendicularly with said longitudinal direction and the leakproof cuff of the above-mentioned pair One edge is fixed to said body as a fixed edge, and the edge of another side turns into a free edge. The 1st elastic member which the flexible force is generated [ elastic member ] in said longitudinal direction, and makes a leakproof cuff stand up is prepared in this free edge. Between said fixed edges and free edges of said leakproof cuff Absorptivity goods characterized by for the flap to which the sheet which constitutes said leakproof cuff was folded up and the folding inside was joined projecting, and forming it towards the core side of the cross direction of said body.

[Claim 2] Said flaps are absorptivity goods according to claim 1 currently projected and formed in the both sides of a crosswise outside the crosswise core side of a body from said leakproof cuff.

[Claim 3] They are the absorptivity goods according to claim 1 with which said flap is prepared in at least two core sides of the cross direction of a body from said leakproof cuff, and forms the 2nd and the 3rd flap, and both these two flaps are prolonged in the longitudinal direction of a body.

[Claim 4] The 2nd and the 3rd flap are absorptivity goods according to claim 3 with which spacing is opened in the longitudinal direction of a body, it is mutually joined, and the pocket is formed of said the 2nd and 3rd flap between the joints by said junction.

[Claim 5] Absorptivity goods according to claim 3 or 4 which said flap projects to the outside of the cross direction of a leakproof cuff, is formed in it in the middle of said the 2nd and 3rd flap, and form the extroversion flap.

[Claim 6] Absorptivity goods according to claim 1 to 5 whose protrusion length from the leakproof cuff of said flap is 5mm or more 10mm or less.

[Claim 7] Absorptivity goods according to claim 1 to 6 said whose spacing is 10mm or more 15mm or less in the part from which are most separated of spacing of the 2nd and the 3rd flap when two or more said flaps are prepared in a leakproof cuff.

[Claim 8] Absorptivity goods according to claim 1 to 7 with the larger contraction strain of the 1st elastic member when the elastic member which demonstrates the flexible force being prepared in the longitudinal direction of a body in the free end of each of said flap, and developing the body section so that a longitudinal direction may serve as a flat surface than the flexible tension of the elastic member prepared in each flap.

[Claim 9] The liquid permeability top sheet turned to a liquid receiving side, and the backseat turned outside, The body which has the absorption core pinched between said top sheets and said backseats, In the absorptivity goods which have the leakproof cuff of the pair arranged at the both sides of the cross direction which extends in the longitudinal direction of a body in the liquid receiving side of said body, and intersects perpendicularly with said longitudinal direction and the leakproof cuff of the above-mentioned pair One edge is fixed to said body as a fixed edge, and the edge of another side turns into a free edge. The 1st elastic member which the flexible force is generated [ elastic member ] in said longitudinal direction, and makes a leakproof cuff stand up is prepared in this free edge. Said leakproof cuff \*\*\*\*\* by which considers as the wave between said fixed edges and free edges, and the top-most vertices of two waves suitable for the crosswise core side of said body open spacing in said longitudinal direction, they are joined to it, and the pocket is formed between [ of said two ] waves between the joints by said junction -- the absorptivity goods characterized by things.

[Claim 10] Absorptivity goods according to claim 9 with the larger contraction strain of the 1st elastic member when the elastic member which demonstrates the flexible force being prepared in the longitudinal direction of a body at said wave-like top-most vertices, and developing the body section so that a longitudinal direction may serve as a flat surface than the flexible tension of the elastic member prepared at said wave-like top-most vertices.

[Claim 11] Absorptivity goods given in either of claims 4, 9, and 10 whose opening die length of the longitudinal direction of the pocket formed between said joints is 5mm or more 20mm or less.

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## DETAILED DESCRIPTION

## [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to disposable absorptivity goods, such as a disposable diaper and a urine picking pad with the leakproof cuff equipped with the outstanding leakage prevention function, and a sanitary napkin.

[0002]

[Description of the Prior Art] In recent years, absorptivity goods, such as a disposable diaper, are used widely. a part of flank of the disposable diaper of the former [ drawing 10 ] -- a sectional view is shown. This disposable diaper consists of absorption cores 112 pinched between the liquid permeability top sheet 110 turned to a wearing person side, the backseat 111 of non-liquid permeability turned outside, and said top sheet 110 and said backseat 111. When the wearing person of a diaper excretes, excrement is absorbed by the absorption core 112, but if a lot of elimination is performed at once, the excrement which was not able to be absorbed with the absorption core 112 will move crosswise (the direction of X). In order to prevent that this excrement leaks from the flank (namely, part which hits the circumference of a wearing person's foot) of a diaper out of a diaper, the leakproof cuff 140 is formed. It is formed with the hydrophobic sheet 114 and the elastic member 130 is formed in one side edge (free edge 140a), the side edge of the opposite side is fixed to the top sheet 110, and the leakproof cuff 140 has become fixed edge 140b. The leakproof cuff which starts toward a result and a wearing person is formed.

[0003] The applicant of this invention does research and development about such a leakproof cuff, and is indicating the disposable wear goods which prepared the leakproof cuff in the duplex in JP,4-218159,A. Moreover, in JP,8-215239,A, a leakproof cuff is folded up in the shape of zigzag, and the disposable body fluid processing supply with which the pocket which carries out opening toward the inside was formed is indicated.

[0004]

[Problem(s) to be Solved by the Invention] However, since excrement, such as urine and a loose passage, has the early rate of flow, when there are many discharges, or when an elimination rate is early, \*\*\*\* stop \*\*\*\*\* is difficult in excrement by said leakproof cuff. Therefore, even if it is the excrement of what kind of gestalt, an appearance of the leakproof cuff which can be prevented effectively is desired [ that it leaks and ] strongly.

[0005] On the other hand, while a wearing person will sense displeasure if reinforcement of the elastic member of a leakproof cuff is strengthened, a wearing person's axle part is closed firmly or a leakproof cuff is prepared also in many [-fold] in order to make the leakage prevention effectiveness high, the area of the diaper equivalent to a wearing person's skin becomes large, and it becomes easy to cause the rash of the skin by friction. Moreover, since the distributivity of the air in the part of gathers also worsens in this case, it is easy to cause MURE and a rash.

[0006] This invention is for solving the above-mentioned technical problem, and it is in offering absorptivity goods with the leakproof cuff equipped with the outstanding leakage prevention function.

[0007] A wearing person's skin can be fogged or the further purpose of this invention has been for offering few absorptivity goods, though it has the outstanding leakage prevention function.

[0008]

[Means for Solving the Problem] The liquid permeability top sheet with which said purpose of this invention is turned to a liquid receiving side, The body which has the absorption core pinched between the backseat turned outside, and said top sheet and said backseat, In the absorptivity goods which have the leakproof cuff of the pair arranged at the both sides of the cross direction which extends in the longitudinal direction of a body in the liquid receiving side of said body, and intersects perpendicularly with said longitudinal direction and the leakproof cuff of the above-mentioned pair One edge is fixed to said body as a fixed edge, and the edge of another side turns into a free edge. The 1st elastic member which the flexible force is generated [ elastic member ] in said longitudinal direction, and makes a leakproof cuff stand up is prepared in this free edge. Between said fixed edges and free edges of said leakproof cuff It is attained by the absorptivity goods characterized by for the flap to which the sheet which constitutes said leakproof cuff was folded up and the folding inside was joined projecting, and forming it towards the core side of the cross direction of said body.

[0009] In the absorptivity goods of this invention, since the substantial distance from the fixed-end section of a projection and a leakproof cuff to a free edge is long to the core side in the cross direction, to the early excrement of the rate of flow which cannot be absorbed with the absorption core in an elimination location flowing crosswise, and overcoming a leakproof cuff, the rate of excrement becomes slow by the existence of a flap, and a flap can prevent the leakage of excrement effectively. Moreover, each one means edge of a leakproof cuff and a flap will contact the skin, there are few touch areas to the skin of a diaper, namely, at the time of wearing of the absorptivity goods of this invention, there is little friction to a wearing person's skin, and they end at it. Furthermore, although an opening is made between a leakproof cuff and the skin, since an opening is further made also in the fixed-end section neighborhood of each flap between the skins in this invention, it is easy to produce circulation of air. Therefore, generating of MURE, a rash, etc. can be suppressed.

[0010] As for said flap, it is desirable to be projected and formed in the both sides of a crosswise outside the crosswise core side of a body from said leakproof cuff.

[0011] Moreover, said flap is prepared in two core sides of the cross direction of a body from said leakproof cuff, and forms the 2nd and the 3rd flap, and, as for both these two flaps, extending in the longitudinal direction of a body is desirable. In this case, spacing is opened in the longitudinal direction of a body, it is joined mutually, and, as for the 2nd and the 3rd flap, it is desirable between the joints by said

junction that the pocket is formed of said the 2nd and 3rd flap. Moreover, in the middle of said the 2nd and 3rd flap, it is desirable for said flap to project to the outside of the cross direction of a leakproof cuff, to be formed in it, and to form the extroversion flap.

[0012] In this invention, it is desirable that the protrusion length from the leakproof cuff of said flap is 5mm or more 10mm or less.

Moreover, when two or more said flaps are prepared in a leakproof cuff, it is desirable that said spacing is 10mm or more 15mm or less in the part from which are most separated of spacing of the 2nd and the 3rd flap.

[0013] Moreover, in the free end of each of said flap, it is desirable that the contraction strain of the 1st elastic member when the elastic member which demonstrates the flexible force being prepared in the longitudinal direction of a body, and developing the body section so that a longitudinal direction may serve as a flat surface is larger than the flexible tension of the elastic member prepared in each flap.

[0014] Moreover, the liquid permeability top sheet with which this invention is turned to a liquid receiving side and the backseat turned outside. The body which has the absorption core pinched between said top sheets and said backseats. In the absorptivity goods which have the leakproof cuff of the pair arranged at the both sides of the cross direction which extends in the longitudinal direction of a body in the liquid receiving side of said body, and intersects perpendicularly with said longitudinal direction and the leakproof cuff of the above-mentioned pair. One edge is fixed to said body as a fixed edge, and the edge of another side turns into a free edge. The 1st elastic member which the flexible force is generated [ elastic member ] in said longitudinal direction, and makes a leakproof cuff stand up is prepared in this free edge. Said leakproof cuff They are the absorptivity goods which are made into the wave between said fixed edges and free edges, and the top-most vertices of two waves suitable for the crosswise core side of said body open spacing in said longitudinal direction, they are joined to it, and are characterized by forming the pocket between [ of said two ] waves between the joints by said junction. In this case, since excrement is held in a pocket, leakage can be prevented effectively.

[0015] At this time, it is desirable that the contraction strain of the 1st elastic member when the elastic member which demonstrates the flexible force being prepared in the longitudinal direction of a body at said wave-like top-most vertices, and developing the body section so that a longitudinal direction may serve as a flat surface is larger than the flexible tension of the elastic member prepared at said wave-like top-most vertices.

[0016] Furthermore, it is desirable that the opening die length of the longitudinal direction of the pocket formed between said joints in this invention is 5mm or more 20mm or less.

[0017]

[Embodiment of the Invention] Hereafter, referring to a drawing, as absorptivity goods of this invention, a disposable diaper is mentioned as an example and explained. The top view in which drawing 1 shows the disposable diaper of this invention from a liquid-permeable sheet side, the sectional view of the II-II line of the diaper which showed drawing 2 to drawing 1, the sectional view of the III-III line of the diaper which showed drawing 3 to drawing 1, and drawing 4 are the fragmentary sectional views explaining the condition in the edge of a leakproof cuff.

[0018] The disposable diaper 1 of this invention shown in drawing 1 is the so-called open-type diaper of a sandglass configuration, and has front section 2A applied by a wearing person's abdomen at the time of use, tooth-back section 2C applied a bottom part and/or back at the time of use, and pars intermedia 2B applied to the crotch section at the time of use. The direction from said front section to said rear-face section through a crotch is made into the direction (a longitudinal direction or lengthwise direction) of Y, and the direction which intersects perpendicularly with it is made into the direction of X (cross direction). Moreover, as shown in drawing 2 and drawing 3, let the direction which goes to a wearing person side be a Z direction.

[0019] this disposable diaper 1 consists of absorption cores 12 somewhat smaller than these sheets pinched between the liquid permeability top sheet 10 turned to a wearing person's liquid receiving side, the backseat 11 of non-liquid permeability turned outside, and said top sheet 10 and said backseat 11. The top sheet 10, a backseat 11, and the absorption core 12 are sandglass configurations, respectively. The top sheet 10 and the backseat 11 are mutually joined by hot melt adhesive etc. around the absorption core 12.

[0020] At the time of wearing, the hanging sheet 17 with which the back flap (part projected in the direction of X) of tooth-back section 2C piled up on the backseat 11 of front section 2A, and was prepared in both the edges of the top sheet 10 of the back flap of said tooth-back section 2C is hung on the backseat side of front section 2A. Consequently, the disposable diaper 1 is set and fixed [ hold and ] to the circumference of a wearing person's waist.

[0021] The top sheet 10 is formed for hydrophobic fiber, hydrophilic fiber, etc. by which hydrophilic processing was carried out, for example, are point bond, Ayr through, span bond, a span ball-race nonwoven fabric, etc. Or a top sheet may be formed for the cushion layer which becomes said nonwoven fabric from a bulky nonwoven fabric in piles. A backseat 11 is liquid impermeability, is permeability, for example, is formed with the resin sheet of a polyolefine system etc. Or a waterproof film may be made to intervene between a backseat and an absorption core, using a nonwoven fabric as a backseat. Moreover, when repeatedly used on other absorptivity goods, it may be formed with the liquid-permeable sheet.

[0022] The absorption core 12 is formed with the mixture of an absorptivity material, for example, grinding pulp, or grinding pulp, and a high absorptivity polymer etc., and the mixture of grinding pulp or grinding pulp, and a high absorptivity polymer is wrapped in the absorptivity sheets 13, such as tissue. Moreover, the hanging sheets 17 are adhesive tape, such as rubber system adhesion material and acrylic resin, etc. Moreover, even once pasting up, a resin film is preferably prepared in the location where the backseat 11 side of a front flap corresponds so that the hanging sheet 17 can paste up and exfoliate repeatedly. However, a thing like a piece of Velcro (trademark) may be used for hanging of the circumference of the waist.

[0023] The band-like hydrophobic sheets 14 and 14 folded up at both-sides section [ on the top sheet 10 of a diaper 1 ] 4 and 4 side are formed in the symmetry to the center line L1. With this hydrophobic sheet 14, leakproof cuff 40A for horizontal leakage prevention as shown in drawing 2 is formed. In leakproof cuff 40A, the hydrophobic sheet 14 is fixed to a flank 4 side on the top sheet 10, and fixed-end section 20b used as the standing-up supporting point of leakproof cuff 40A is formed. On the other hand, after [ in the direction of Y ] the elastic member 30 has lengthened covering an overall length mostly, it is prepared in free edge 20a of the opposite side (center line L1 side) of the hydrophobic sheet 14. And the edges 14A and 14C (edge in the direction of Y) before and behind the hydrophobic sheet 14 move free edge 20a to a center line L1 position, and are being fixed on the top sheet 10. Consequently, the disposable diaper 1 curves in the U character condition, free edge 20a starts in the direction of a wearing person (Z direction), and pair formation of the leakproof cuff 40A for horizontal leakage prevention is carried out. In addition, free edge 20a is moved to a flank 4 position, and may be fixed on the top sheet 10.

[0024] The hydrophobic sheet 14 which constitutes leakproof cuff 40A is folded up in this leakproof cuff 40A, that folding inside is joined to it, and the 2nd and the 3rd flap are formed in it. First, open the predetermined distance of 20h from free edge 20a between free edge 20a

of leakproof cuff 40A, and fixed-end section 20b, the hydrophobic sheet 14 is made to project in the direction of X by the side of a center line L1, and the 2nd flap 21 is formed. The root of the 2nd flap 21 is fixed-end section 21b, and the opposite side (center line L1 side) has become free edge 21a, and to free edge 21a, it can set in the direction of Y -- the elastic member 31 is mostly formed covering the overall length. In order to form a flap certainly, and since the permeability in a flap is not spoiled at this time, hydrophobic sheet 14 in fixed-end section 21b are joined along with fixed-end section 21b, since an elastic member 31 is fixed, it joins along with free edge 21a, and not being joined is desirable between fixed-end section 21b and free edge 21a. However, hydrophobic sheets may be joined from fixed-end section 21b to free edge 21a.

[0025] Open predetermined spacing of 21h from fixed-end section 21b between the 2nd flap 21 and fixed-end section 20b of leakproof cuff 40A (opening predetermined spacing of 22h from fixed-end section 20b), the hydrophobic sheet 14 is made similarly to project in the direction of X by the side of a center line L1, and the 3rd flap 22 is formed, and to free edge 22a, it can set in the direction of Y like the 2nd flap 21 -- the elastic member 32 is mostly formed covering the overall length.

[0026] As for each flexible tension of the elastic members 31 and 32 prepared in the 2nd and the 3rd flap, it is desirable that it is smaller than the flexible tension of the elastic member 30 prepared in free edge 20a of leakproof cuff 40A when developing a diaper 1 so that the direction of Y may serve as a flat surface. For example, as an elastic member 30 prepared in free edge 20a of leakproof cuff 40A, when a 1120-denier thing is used, the flexible tension at the time of 200% expanding is desirable, 100g or less, the flexible tension at the time of 200% expanding is desirable, and, on the other hand, the elastic members 31 and 32 of each flap are 80g or less, when it is a 840-denier thing, respectively. If it does in this way, leakproof cuff 40A can be made to stand up to a Z direction certainly. Moreover, it fits by strength with each moderate elastic member, without bolting to a wearing person also becoming tight.

[0027] Moreover, as for the formation location of the 2nd and the 3rd flap 21 and 22, it is desirable that they are spacing 20h=10-15mm, spacing 21h=10-15mm, and spacing 22h=5-10mm. Moreover, as for protrusion width-of-face 21w to the direction of X of the 2nd and the 3rd flap 21 and 22, it is desirable that it is 5-15mm. And as for height of 40h of leakproof cuff 40A finally obtained, it is desirable that it is about 25-40mm. Under such conditions, only the free edge of a leakproof cuff and each flap comes to touch a wearing person at the time of diaper wearing.

[0028] The 2nd and the 3rd flap of each other are preferably joined [ in / along the direction of Y / in the 2nd and the 3rd flap / the field of the hydrophobic sheet 14 which is shown in drawing 1 although mostly formed covering the overall length and by which hatching was carried out ] to the free edge 21a [ of the 2nd and the 3rd flap ], and 22a side. That is, in the field 45, the free edge 21a [ of the 3rd flap ] and 22a side is joined to the 2nd located up and down as shown in drawing 3 by the heat welding by hot melt adhesive, the supersonic wave, or heating.

[0029] Thus, in the field which is not joined as shown in drawing 4, if spacing is opened along the direction of Y and the free edges of the 3rd flap are joined to the 2nd, the free edges 21a and 22a of flaps 21 and 22 will be in the condition of facing to the inside mutually as the condition that flaps 21 and 22 were projected in the direction of X almost in parallel with the absorption core 12 is maintained or a field 45 is approached. Consequently, the pocket 41 as shown in drawing 2 in the field to which the free edge is not joined is formed. Since excrement is held in this pocket 41, it is hard coming to generate that excrement overcomes a leakproof cuff and leaks out of a diaper.

[0030] In order to make a pocket 41 form certainly at this time, as for junction width-of-face 45w in the direction of X in a field 45, it is desirable that it is 3-5mm. Moreover, in order to fully pull out a function for a pocket 41 to hold excrement, as for junction die length of 45d in the direction of Y of a field 45, it is desirable that it is 46 or less spacing (die length in the direction of Y of a non-joining field) of a \*\*\*\*\* junction field. In addition, as for the spacing 46 of an adjacent junction field, i.e., the opening die length of a pocket 41, it is desirable that it is 5-20mm.

[0031] Between the 2nd and the 3rd flap, the extroversion flap 25 of the 2nd flap 21 and the 3rd flap 22 with which the 2nd and the 3rd flap project in the direction of X of the opposite side (outside of a diaper) in pars intermedia mostly is formed preferably further again. Like the 2nd and the 3rd flap 21 and 22, it extends from fixed-end section 25b to free edge 25a, and the protrusion width of face is 5-15mm preferably like the 2nd and the protrusion width of face of the 3rd flap. Moreover, the elastic member 35 is formed in free edge 25a. Since balance is maintained in the relation of the 2nd and the 3rd flap 21 and 22 which project in the opposite side by forming such an extroversion flap 25, orthostatic [ of leakproof cuff 40A ] increases further. Moreover, it becomes a desirable configuration in this case that the configuration of a pocket 41 holds excrement.

[0032] in addition, leakproof cuff 40A which contains the 2nd and the 3rd flap at the hydrophobic sheet 14 order edges 14A and 14C -- all are joined to the top sheet 10. If it folds up and joins in the condition that the hydrophobic sheet 14 is shown in drawing 4, at this time, a production process will be easy and leakproof cuff 40A will tend to start to a Z direction at the time of wearing.

[0033] The hydrophobic sheet 14 which forms leakproof cuff 40A is permeability preferably. For example, the sheet on which the span bond nonwoven fabric, and the span bond nonwoven fabric and the melt blow nonwoven fabric formed by the polypropylene fiber, and the span bond nonwoven fabric were put is formed with the nonwoven fabric formed for hydrophobic fiber, the resin sheet of non-liquid permeability, etc., and it deals in it. If the hydrophobic sheet 14 is thermoplasticity, since each flap can be formed by heat-treatment or sonication, it is convenient.

[0034] Moreover, in the flank 4 of the disposable diaper 1, adhesion immobilization of the elastic members 39 and 39 prolonged in the lengthwise direction (the direction of Y) of the disposable diaper 1 is carried out between the hydrophobic sheet 14 and the backseat 11. When these elastic members 39 and 39 carry out elastic contraction in the direction of Y, the top sheet 10 and a backseat 11 are shrunk in the both-sides section field of the direction of X of the disposable diaper 1, and the leg cuff fit for axle part is formed. In addition, instead of the hydrophobic sheet 14, the top sheet 10 can be made to be able to extend in the flank 4 direction, and adhesion immobilization of the elastic member can be carried out between the top sheet 10 and a backseat 11.

[0035] Next, an example is given and the gestalt of other operations of this invention is explained. Drawing 5, drawing 6, drawing 7, and drawing 8 are the partial expanded sectional views showing the gestalt of other operations of the leakproof cuff of the absorptivity goods of this invention, respectively. Drawing 9 is the partial expanded sectional view showing the junction condition of the leakproof cuff of drawing 8.

[0036] In drawing 5, the 2nd flap 21 and 3rd flap 22 are prepared in leakproof cuff 40B. However, the extroversion flap as shown in leakproof cuff 40A of drawing 1 -3 is not prepared. Even if it is such a case, leakproof cuff 40B can stand up in the direction of a wearing person, and can make excrement hold in a pocket.

[0037] Moreover, as shown in leakproof cuff 40C of drawing 6, an elastic member does not need to be prepared in the free edge of a flap. In this case, since it is hard to project the 2nd flap 21 and 3rd flap 22 in the direction of X in parallel with the absorption core 12, as

explained, for example in drawing 1 and drawing 3, it is desirable that the 2nd flap 21 and 3rd flap 22 are joined to the free edge 21a and 22a side for every predetermined spacing in the direction of Y. Even if the elastic member is not prepared in a free edge, the pocket holding excrement can be made to form by making it join in this way.

[0038] Moreover, as shown in leakproof cuff 40D of drawing 7, the 3rd flap 22 can be formed by sheet 14b different from hydrophobic sheet 14a which forms the 2nd flap 21. In this case, it is desirable to be joined from fixed-end section 20b of leakproof cuff 40D to fixed-end section 22b of the 3rd flap 22. Moreover, the 3rd flap may not be a hydrophobic sheet at this time. Thus, each flap can be formed and combined with a separate sheet, and a leakproof cuff can also be constituted.

[0039] Moreover, in the leakproof cuff of drawing 8, it is a wave from fixed-end section 20b to free edge 20a. By forming an elastic member 32 in the location in which predetermined spacing was opened from fixed-end section 20b, when the 3rd flap 22 forms an elastic member 35 in the location in which predetermined spacing was opened further, and an extroversion flap forms an elastic member 31 in the location in which predetermined spacing was opened further, the 2nd flap 21 is formed, respectively. And as shown in drawing 9, spacing is opened in said longitudinal direction and free edge 21a of the 2nd flap and free edge 22a of the 3rd flap, i.e., the top-most vertices of two waves suitable for a crosswise core side, are joined to it. Consequently, the pocket holding excrement is formed between joints.

[0040] When the flap is formed without joining the insides of the hydrophobic sheet 14 like leakproof cuff 40E, since it is hard to project the 2nd flap 21 and 3rd flap 22 in the direction of X in parallel with the absorption core 12. For example, as explained in drawing 1 and drawing 3, it is desirable that the 2nd flap 21 and 3rd flap 22 make it join to the free edge 21a and 22a side for every predetermined spacing in the direction of Y.

[0041] In addition, everything but the 2nd and 3rd flap may make the 4th and the 5th flap form in the leakproof cuff of the absorptivity goods of this invention further. Moreover, a leakproof cuff may be formed combining the flap which joined and formed the hydrophobic sheet, and the flap formed without joining. Moreover, the elastic member which each flap does not need to be prepared over all the longitudinal directions of a leakproof cuff, and is prepared in each flap does not need to be prepared over all the longitudinal directions of a leakproof cuff.

[0042] In addition, the leakproof cuff prepared in the absorptivity goods of this invention may not be restricted to the open-type disposable diaper of said sandglass configuration, but may be a rectangular open-type disposable diaper or the rectangular disposable diaper beforehand formed in the trousers mold. In addition, it is applicable also to absorptivity goods, such as sanitary items and a urine picking pad.

[0043]

[Effect of the Invention] As explained in full detail above, since the rate of flow of excrement can be made late by existence of the flap of a leakproof cuff, in the absorptivity goods of this invention, it can prevent that excrement overcomes a leakproof cuff and leaks out of a diaper. Moreover, the free edge of a leakproof cuff and each one means edge of a flap will contact the skin at the time of wearing of the absorptivity goods of this invention, and since there are few touch areas to the skin of a diaper, there is little friction to a wearing person's skin, and it ends. Furthermore, since an opening is made in the fixed-end section neighborhood of each flap between the skins, it is easy to produce circulation of air, and generating of MURE, a rash, etc. can be suppressed. Therefore, the displeasure at the time of wearing can be reduced.

[0044] Furthermore, when excrement flows horizontally, it can be made to hold in a pocket, since a pocket is formed by joining intermittently the free edge side of the flap located up and down. It is hard coming to generate leakage in a result and a pan.

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## DETAILED DESCRIPTION

## [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to disposable absorptivity goods, such as a disposable diaper and a urine picking pad with the leakproof cuff equipped with the outstanding leakage prevention function, and a sanitary napkin.

[0002]

[Description of the Prior Art] In recent years, absorptivity goods, such as a disposable diaper, are used widely. a part of flank of the disposable diaper of the former [ drawing 10 ] -- a sectional view is shown. This disposable diaper consists of absorption cores 112 pinched between the liquid permeability top sheet 110 turned to a wearing person side, the backseat 111 of non-liquid permeability turned outside, and said top sheet 110 and said backseat 111. When the wearing person of a diaper excretes, excrement is absorbed by the absorption core 112, but if a lot of elimination is performed at once, the excrement which was not able to be absorbed with the absorption core 112 will move crosswise (the direction of X). In order to prevent that this excrement leaks from the flank (namely, part which hits the circumference of a wearing person's foot) of a diaper out of a diaper, the leakproof cuff 140 is formed. It is formed with the hydrophobic sheet 114 and the elastic member 130 is formed in one side edge (free edge 140a), the side edge of the opposite side is fixed to the top sheet 110, and the leakproof cuff 140 has become fixed edge 140b. The leakproof cuff which starts toward a result and a wearing person is formed.

[0003] The applicant of this invention does research and development about such a leakproof cuff, and is indicating the disposable wear goods which prepared the leakproof cuff in the duplex in JP,4-218159,A. Moreover, in JP,8-215239,A, a leakproof cuff is folded up in the shape of zigzag, and the disposable body fluid processing supply with which the pocket which carries out opening toward the inside was formed is indicated.

[0004]

[Problem(s) to be Solved by the Invention] However, since excrement, such as urine and a loose passage, has the early rate of flow, when there are many discharges, or when an elimination rate is early, \*\*\*\* stop \*\*\*\*\* is difficult in excrement by said leakproof cuff. Therefore, even if it is the excrement of what kind of gestalt, an appearance of the leakproof cuff which can be prevented effectively is desired [ that it leaks and ] strongly.

[0005] On the other hand, while a wearing person will sense displeasure if reinforcement of the elastic member of a leakproof cuff is strengthened, a wearing person's axle part is closed firmly or a leakproof cuff is prepared also in many [-fold ] in order to make the leakage prevention effectiveness high, the area of the diaper equivalent to a wearing person's skin becomes large, and it becomes easy to cause the rash of the skin by friction. Moreover, since the distributivity of the air in the part of gathers also worsens in this case, it is easy to cause MURE and a rash.

[0006] This invention is for solving the above-mentioned technical problem, and it is in offering absorptivity goods with the leakproof cuff equipped with the outstanding leakage prevention function.

[0007] A wearing person's skin can be fogged or the further purpose of this invention has been for offering few absorptivity goods, though it has the outstanding leakage prevention function.

[0008]

[Means for Solving the Problem] The liquid permeability top sheet with which said purpose of this invention is turned to a liquid receiving side. The body which has the absorption core pinched between the backseat turned outside, and said top sheet and said backseat. In the absorptivity goods which have the leakproof cuff of the pair arranged at the both sides of the cross direction which extends in the longitudinal direction of a body in the liquid receiving side of said body, and intersects perpendicularly with said longitudinal direction and the leakproof cuff of the above-mentioned pair One edge is fixed to said body as a fixed edge, and the edge of another side turns into a free edge. The 1st elastic member which the flexible force is generated [ elastic member ] in said longitudinal direction, and makes a leakproof cuff stand up is prepared in this free edge. Between said fixed edges and free edges of said leakproof cuff It is attained by the absorptivity goods characterized by for the flap to which the sheet which constitutes said leakproof cuff was folded up and the folding inside was joined projecting, and forming it towards the core side of the cross direction of said body.

[0009] In the absorptivity goods of this invention, since the substantial distance from the fixed-end section of a projection and a leakproof cuff to a free edge is long to the core side in the cross direction, to the early excrement of the rate of flow which cannot be absorbed with the absorption core in an elimination location flowing crosswise, and overcoming a leakproof cuff, the rate of excrement becomes slow by existence of a flap, and a flap can prevent the leakage of excrement effectively. Moreover, each one means edge of a leakproof cuff and a flap will contact the skin, there are few touch areas to the skin of a diaper, namely, at the time of wearing of the absorptivity goods of this invention, there is little friction to a wearing person's skin, and they end at it. Furthermore, although an opening is made between a leakproof cuff and the skin, since an opening is further made also in the fixed-end section neighborhood of each flap between the skins in this invention, it is easy to produce circulation of air. Therefore, generating of MURE, a rash, etc. can be suppressed.

[0010] As for said flap, it is desirable to be projected and formed in the both sides of a crosswise outside the crosswise core side of a body from said leakproof cuff.

[0011] Moreover, said flap is prepared in two core sides of the cross direction of a body from said leakproof cuff, and forms the 2nd and the 3rd flap, and, as for both these two flaps, extending in the longitudinal direction of a body is desirable. In this case, spacing is opened in the longitudinal direction of a body, it is joined mutually, and, as for the 2nd and the 3rd flap, it is desirable between the joints by said

junction that the pocket is formed of said the 2nd and 3rd flap. Moreover, in the middle of said the 2nd and 3rd flap, it is desirable for said flap to project to the outside of the cross direction of a leakproof cuff, to be formed in it, and to form the extroversion flap.

[0012] In this invention, it is desirable that the protrusion length from the leakproof cuff of said flap is 5mm or more 10mm or less.

Moreover, when two or more said flaps are prepared in a leakproof cuff, it is desirable that said spacing is 10mm or more 15mm or less in the part from which are most separated of spacing of the 2nd and the 3rd flap.

[0013] Moreover, in the free end of each of said flap, it is desirable that the contraction strain of the 1st elastic member when the elastic member which demonstrates the flexible force being prepared in the longitudinal direction of a body, and developing the body section so that a longitudinal direction may serve as a flat surface is larger than the flexible tension of the elastic member prepared in each flap.

[0014] Moreover, the liquid permeability top sheet with which this invention is turned to a liquid receiving side and the backseat turned outside. The body which has the absorption core pinched between said top sheets and said backseats. In the absorptivity goods which have the leakproof cuff of the pair arranged at the both sides of the cross direction which extends in the longitudinal direction of a body in the liquid receiving side of said body, and intersects perpendicularly with said longitudinal direction and the leakproof cuff of the above-mentioned pair. One edge is fixed to said body as a fixed edge, and the edge of another side turns into a free edge. The 1st elastic member which the flexible force is generated [ elastic member ] in said longitudinal direction, and makes a leakproof cuff stand up is prepared in this free edge. Said leakproof cuff They are the absorptivity goods which are made into the wave between said fixed edges and free edges, and the top-most vertices of two waves suitable for the crosswise core side of said body open spacing in said longitudinal direction, they are joined to it. and are characterized by forming the pocket between [ of said two ] waves between the joints by said junction. In this case, since excrement is held in a pocket, leakage can be prevented effectively.

[0015] At this time, it is desirable that the contraction strain of the 1st elastic member when the elastic member which demonstrates the flexible force being prepared in the longitudinal direction of a body at said wave-like top-most vertices, and developing the body section so that a longitudinal direction may serve as a flat surface is larger than the flexible tension of the elastic member prepared at said wave-like top-most vertices.

[0016] Furthermore, it is desirable that the opening die length of the longitudinal direction of the pocket formed between said joints in this invention is 5mm or more 20mm or less.

[0017]

[Embodiment of the Invention] Hereafter, referring to a drawing, as absorptivity goods of this invention, a disposable diaper is mentioned as an example and explained. The top view in which drawing 1 shows the disposable diaper of this invention from a liquid-permeable sheet side, the sectional view of the II-II line of the diaper which showed drawing 2 to drawing 1, the sectional view of the III-III line of the diaper which showed drawing 3 to drawing 1, and drawing 4 are the fragmentary sectional views explaining the condition in the edge of a leakproof cuff.

[0018] The disposable diaper 1 of this invention shown in drawing 1 is the so-called open-type diaper of a sandglass configuration, and has front section 2A applied by a wearing person's abdomen at the time of use, tooth-back section 2C applied a bottom part and/or back at the time of use, and pars intermedia 2B applied to the crotch section at the time of use. The direction from said front section to said rear-face section through a crotch is made into the direction (a longitudinal direction or lengthwise direction) of Y, and the direction which intersects perpendicularly with it is made into the direction of X (cross direction). Moreover, as shown in drawing 2 and drawing 3, let the direction which goes to a wearing person side be a Z direction.

[0019] this disposable diaper 1 consists of absorption cores 12 somewhat smaller than these sheets pinched between the liquid permeability top sheet 10 turned to a wearing person's liquid receiving side, the backseat 11 of non-liquid permeability turned outside, and said top sheet 10 and said backseat 11. The top sheet 10, a backseat 11, and the absorption core 12 are sandglass configurations, respectively. The top sheet 10 and the backseat 11 are mutually joined by hot melt adhesive etc. around the absorption core 12.

[0020] At the time of wearing, the hanging sheet 17 with which the back flap (part projected in the direction of X) of tooth-back section 2C piled up on the backseat 11 of front section 2A, and was prepared in both the edges of the top sheet 10 of the back flap of said tooth-back section 2C is hung on the backseat side of front section 2A. Consequently, the disposable diaper 1 is set and fixed [ hold and ] to the circumference of a wearing person's waist.

[0021] The top sheet 10 is formed for hydrophobic fiber, hydrophilic fiber, etc. by which hydrophilic processing was carried out, for example, are point bond, Ayr through, span bond, a span ball-race nonwoven fabric, etc. Or a top sheet may be formed for the cushion layer which becomes said nonwoven fabric from a bulky nonwoven fabric in piles. A backseat 11 is liquid impermeability, is permeability, for example, is formed with the resin sheet of a polyolefine system etc. Or a waterproof film may be made to intervene between a backseat and an absorption core, using a nonwoven fabric as a backseat. Moreover, when repeatedly used on other absorptivity goods, it may be formed with the liquid-permeable sheet.

[0022] The absorption core 12 is formed with the mixture of an absorptivity material, for example, grinding pulp, or grinding pulp, and a high absorptivity polymer etc., and the mixture of grinding pulp or grinding pulp, and a high absorptivity polymer is wrapped in the absorptivity sheets 13, such as tissue. Moreover, the hanging sheets 17 are adhesive tape, such as rubber system adhesion material and acrylic resin, etc. Moreover, even once pasting up, a resin film is preferably prepared in the location where the backseat 11 side of a front flap corresponds so that the hanging sheet 17 can paste up and exfoliate repeatedly. However, a thing like a piece of Velcro (trademark) may be used for hanging of the circumference of the waist.

[0023] The band-like hydrophobic sheets 14 and 14 folded up at both-sides section [ on the top sheet 10 of a diaper 1 ] 4 and 4 side are formed in the symmetry to the center line L1. With this hydrophobic sheet 14, leakproof cuff 40A for horizontal leakage prevention as shown in drawing 2 is formed. In leakproof cuff 40A, the hydrophobic sheet 14 is fixed to a flank 4 side on the top sheet 10, and fixed-end section 20b used as the standing-up supporting point of leakproof cuff 40A is formed. On the other hand, after [ in the direction of Y ] the elastic member 30 has lengthened covering an overall length mostly, it is prepared in free edge 20a of the opposite side (center line L1 side) of the hydrophobic sheet 14. And the edges 14A and 14C (edge in the direction of Y) before and behind the hydrophobic sheet 14 move free edge 20a to a center line L1 position, and are being fixed on the top sheet 10. Consequently, the disposable diaper 1 curves in the U character condition, free edge 20a starts in the direction of a wearing person (Z direction), and pair formation of the leakproof cuff 40A for horizontal leakage prevention is carried out. In addition, free edge 20a is moved to a flank 4 position, and may be fixed on the top sheet 10.

[0024] The hydrophobic sheet 14 which constitutes leakproof cuff 40A is folded up in this leakproof cuff 40A, that folding inside is joined to it, and the 2nd and the 3rd flap are formed in it. First, open the predetermined distance of 20h from free edge 20a between free edge 20a



of leakproof cuff 40A, and fixed-end section 20b, the hydrophobic sheet 14 is made to project in the direction of X by the side of a center line L1, and the 2nd flap 21 is formed. The root of the 2nd flap 21 is fixed-end section 21b, and the opposite side (center line L1 side) has become free edge 21a. and to free edge 21a, it can set in the direction of Y -- the elastic member 31 is mostly formed covering the overall length. In order to form a flap certainly, and since the permeability in a flap is not spoiled at this time, hydrophobic sheet 14 in fixed-end section 21b are joined along with fixed-end section 21b, since an elastic member 31 is fixed, it joins along with free edge 21a, and not being joined is desirable between fixed-end section 21b and free edge 21a. However, hydrophobic sheets may be joined from fixed-end section 21b to free edge 21a.

[0025] Open predetermined spacing of 21h from fixed-end section 21b between the 2nd flap 21 and fixed-end section 20b of leakproof cuff 40A (opening predetermined spacing of 22h from fixed-end section 20b), the hydrophobic sheet 14 is made similarly to project in the direction of X by the side of a center line L1, and the 3rd flap 22 is formed. and to free edge 22a, it can set in the direction of Y like the 2nd flap 21 -- the elastic member 32 is mostly formed covering the overall length.

[0026] As for each flexible tension of the elastic members 31 and 32 prepared in the 2nd and the 3rd flap, it is desirable that it is smaller than the flexible tension of the elastic member 30 prepared in free edge 20a of leakproof cuff 40A when developing a diaper 1 so that the direction of Y may serve as a flat surface. For example, as an elastic member 30 prepared in free edge 20a of leakproof cuff 40A, when a 1120-denier thing is used, the flexible tension at the time of 200% expanding is desirable, 100g or less, the flexible tension at the time of 200% expanding is desirable, and, on the other hand, the elastic members 31 and 32 of each flap are 80g or less, when it is a 840-denier thing, respectively. If it does in this way, leakproof cuff 40A can be made to stand up to a Z direction certainly. Moreover, it fits by strength with each moderate elastic member, without bolting to a wearing person also becoming tight.

[0027] Moreover, as for the formation location of the 2nd and the 3rd flap 21 and 22, it is desirable that they are spacing 20h=10-15mm, spacing 21h=10-15mm, and spacing 22h=5-10mm. Moreover, as for protrusion width-of-face 21w to the direction of X of the 2nd and the 3rd flap 21 and 22, it is desirable that it is 5-15mm. And as for height of 40h of leakproof cuff 40A finally obtained, it is desirable that it is about 25-40mm. Under such conditions, only the free edge of a leakproof cuff and each flap comes to touch a wearing person at the time of diaper wearing.

[0028] The 2nd and the 3rd flap of each other are preferably joined [ in / along the direction of Y / in the 2nd and the 3rd flap / the field of the hydrophobic sheet 14 which is shown in drawing 1 although mostly formed covering the overall length and by which hatching was carried out ] to the free edge 21a [ of the 2nd and the 3rd flap ], and 22a side. That is, in the field 45, the free edge 21a [ of the 3rd flap ] and 22a side is joined to the 2nd located up and down as shown in drawing 3 by the heat welding by hot melt adhesive, the supersonic wave, or heating.

[0029] Thus, in the field which is not joined as shown in drawing 4 , if spacing is opened along the direction of Y and the free edges of the 3rd flap are joined to the 2nd, the free edges 21a and 22a of flaps 21 and 22 will be in the condition of facing to the inside mutually as the condition that flaps 21 and 22 were projected in the direction of X almost in parallel with the absorption core 12 is maintained or a field 45 is approached. Consequently, the pocket 41 as shown in drawing 2 in the field to which the free edge is not joined is formed. Since excrement is held in this pocket 41, it is hard coming to generate that excrement overcomes a leakproof cuff and leaks out of a diaper.

[0030] In order to make a pocket 41 form certainly at this time, as for junction width-of-face 45w in the direction of X in a field 45, it is desirable that it is 3-5mm. Moreover, in order to fully pull out a function for a pocket 41 to hold excrement, as for junction die length of 45d in the direction of Y of a field 45, it is desirable that it is 46 or less spacing (die length in the direction of Y of a non-joining field) of a \*\*\*\*\* junction field. In addition, as for the spacing 46 of an adjacent junction field, i.e., the opening die length of a pocket 41, it is desirable that it is 5-20mm.

[0031] Between the 2nd and the 3rd flap, the extroversion flap 25 of the 2nd flap 21 and the 3rd flap 22 with which the 2nd and the 3rd flap project in the direction of X of the opposite side (outside of a diaper) in pars intermedia mostly is formed preferably further again. Like the 2nd and the 3rd flap 21 and 22, it extends from fixed-end section 25b to free edge 25a, and the protrusion width of face is 5-15mm preferably like the 2nd and the protrusion width of face of the 3rd flap. Moreover, the elastic member 35 is formed in free edge 25a. Since balance is maintained in the relation of the 2nd and the 3rd flap 21 and 22 which project in the opposite side by forming such an extroversion flap 25, orthostatic [ of leakproof cuff 40A ] increases further. Moreover, it becomes a desirable configuration in this case that the configuration of a pocket 41 holds excrement.

[0032] In addition, leakproof cuff 40A which contains the 2nd and the 3rd flap at the hydrophobic sheet 14 order edges 14A and 14C -- all are joined to the top sheet 10. If it folds up and joins in the condition that the hydrophobic sheet 14 is shown in drawing 4 , at this time, a production process will be easy and leakproof cuff 40A will tend to start to a Z direction at the time of wearing.

[0033] The hydrophobic sheet 14 which forms leakproof cuff 40A is permeability preferably. For example, the sheet on which the span bond nonwoven fabric, and the span bond nonwoven fabric and the melt blow nonwoven fabric formed by the polypropylene fiber, and the span bond nonwoven fabric were put is formed with the nonwoven fabric formed for hydrophobic fiber, the resin sheet of non-liquid permeability, etc., and it deals in it. If the hydrophobic sheet 14 is thermoplasticity, since each flap can be formed by heat-treatment or sonication, it is convenient.

[0034] Moreover, in the flank 4 of the disposable diaper 1, adhesion immobilization of the elastic members 39 and 39 prolonged in the lengthwise direction (the direction of Y) of the disposable diaper 1 is carried out between the hydrophobic sheet 14 and the backseat 11. When these elastic members 39 and 39 carry out elastic contraction in the direction of Y, the top sheet 10 and a backseat 11 are shrunk in the both-sides section field of the direction of X of the disposable diaper 1, and the leg cuff fit for axle part is formed. In addition, instead of the hydrophobic sheet 14, the top sheet 10 can be made to be able to extend in the flank 4 direction, and adhesion immobilization of the elastic member can be carried out between the top sheet 10 and a backseat 11.

[0035] Next, an example is given and the gestalt of other operations of this invention is explained. Drawing 5 , drawing 6 , drawing 7 , and drawing 8 are the partial expanded sectional views showing the gestalt of other operations of the leakproof cuff of the absorptivity goods of this invention, respectively. Drawing 9 is the partial expanded sectional view showing the junction condition of the leakproof cuff of drawing 8 .

[0036] In drawing 5 , the 2nd flap 21 and 3rd flap 22 are prepared in leakproof cuff 40B. However, the extroversion flap as shown in leakproof cuff 40A of drawing 1 -3 is not prepared. Even if it is such a case, leakproof cuff 40B can stand up in the direction of a wearing person, and can make excrement hold in a pocket.

[0037] Moreover, as shown in leakproof cuff 40C of drawing 6 , an elastic member does not need to be prepared in the free edge of a flap. In this case, since it is hard to project the 2nd flap 21 and 3rd flap 22 in the direction of X in parallel with the absorption core 12. as

explained, for example in drawing 1 and drawing 3, it is desirable that the 2nd flap 21 and 3rd flap 22 are joined to the free edge 21a and 22a side for every predetermined spacing in the direction of Y. Even if the elastic member is not prepared in a free edge, the pocket holding excrement can be made to form by making it join in this way.

[0038] Moreover, as shown in leakproof cuff 40D of drawing 7, the 3rd flap 22 can be formed by sheet 14b different from hydrophobic sheet 14a which forms the 2nd flap 21. In this case, it is desirable to be joined from fixed-end section 20b of leakproof cuff 40D to fixed-end section 22b of the 3rd flap 22. Moreover, the 3rd flap may not be a hydrophobic sheet at this time. Thus, each flap can be formed and combined with a separate sheet, and a leakproof cuff can also be constituted.

[0039] Moreover, in the leakproof cuff of drawing 8, it is a wave from fixed-end section 20b to free edge 20a. By forming an elastic member 32 in the location in which predetermined spacing was opened from fixed-end section 20b, when the 3rd flap 22 forms an elastic member 35 in the location in which predetermined spacing was opened further, and an extroversion flap forms an elastic member 31 in the location in which predetermined spacing was opened further, the 2nd flap 21 is formed, respectively. And as shown in drawing 9, spacing is opened in said longitudinal direction and free edge 21a of the 2nd flap and free edge 22a of the 3rd flap, i.e., the top-most vertices of two waves suitable for a crosswise core side, are joined to it. Consequently, the pocket holding excrement is formed between joints.

[0040] When the flap is formed without joining the insides of the hydrophobic sheet 14 like leakproof cuff 40E, since it is hard to project the 2nd flap 21 and 3rd flap 22 in the direction of X in parallel with the absorption core 12. For example, as explained in drawing 1 and drawing 3, it is desirable that the 2nd flap 21 and 3rd flap 22 make it join to the free edge 21a and 22a side for every predetermined spacing in the direction of Y.

[0041] In addition, everything but the 2nd and 3rd flap may make the 4th and the 5th flap form in the leakproof cuff of the absorptivity goods of this invention further. Moreover, a leakproof cuff may be formed combining the flap which joined and formed the hydrophobic sheet, and the flap formed without joining. Moreover, the elastic member which each flap does not need to be prepared over all the longitudinal directions of a leakproof cuff, and is prepared in each flap does not need to be prepared over all the longitudinal directions of a leakproof cuff.

[0042] In addition, the leakproof cuff prepared in the absorptivity goods of this invention may not be restricted to the open-type disposable diaper of said sandglass configuration, but may be a rectangular open-type disposable diaper or the rectangular disposable diaper beforehand formed in the trousers mold. In addition, it is applicable also to absorptivity goods, such as sanitary items and a urine picking pad.

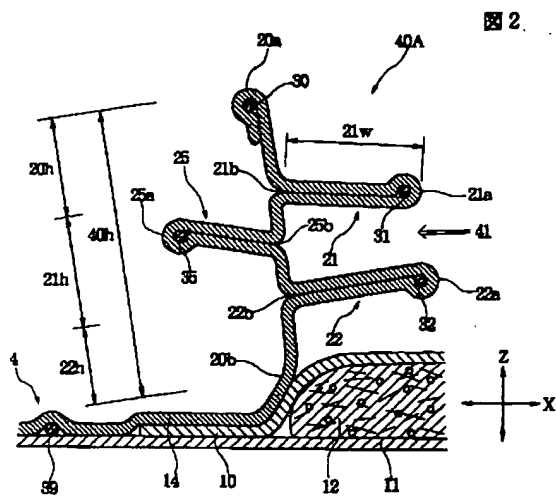
[0043] [Effect of the Invention] As explained in full detail above, since the rate of flow of excrement can be made late by existence of the flap of a leakproof cuff, in the absorptivity goods of this invention, it can prevent that excrement overcomes a leakproof cuff and leaks out of a diaper. Moreover, the free edge of a leakproof cuff and each one means edge of a flap will contact the skin at the time of wearing of the absorptivity goods of this invention, and since there are few touch areas to the skin of a diaper, there is little friction to a wearing person's skin, and it ends. Furthermore, since an opening is made in the fixed-end section neighborhood of each flap between the skins, it is easy to produce circulation of air, and generating of MURE, a rash, etc. can be suppressed. Therefore, the displeasure at the time of wearing can be reduced.

[0044] Furthermore, when excrement flows horizontally, it can be made to hold in a pocket, since a pocket is formed by joining intermittently the free edge side of the flap located up and down. It is hard coming to generate leakage in a result and a pan.

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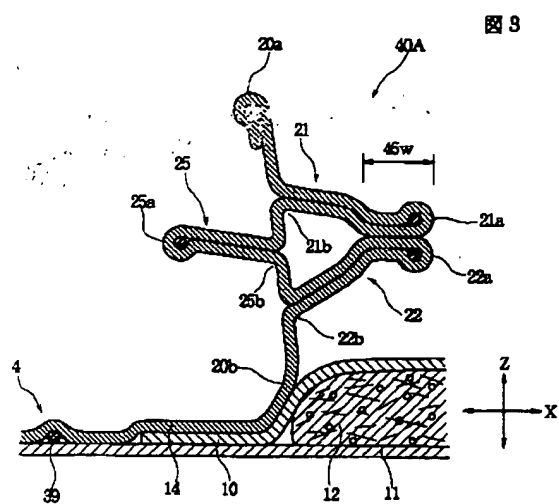
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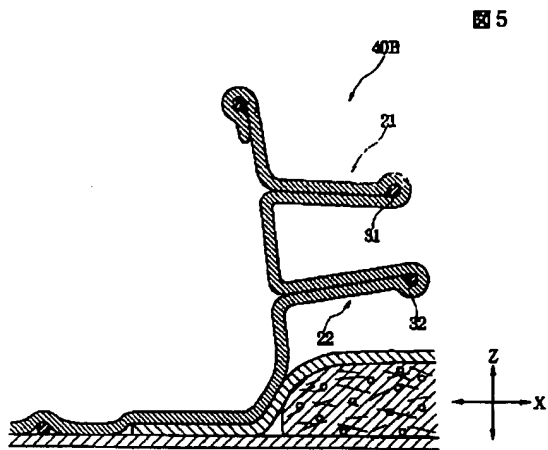
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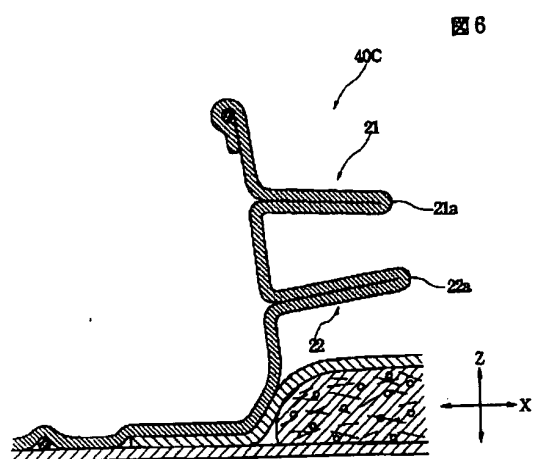


Drawing selection drawing 5



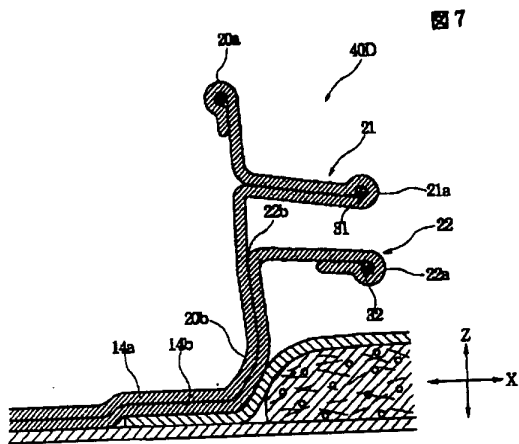
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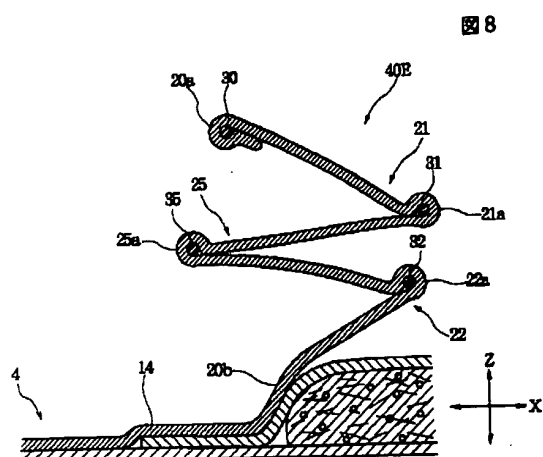
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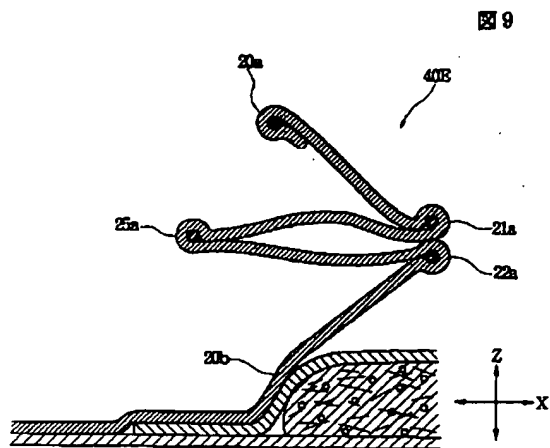


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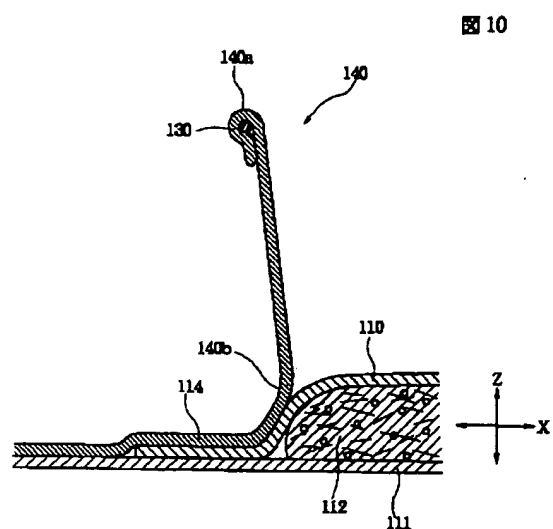
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## Drawing selection drawing 9



[Translation done.]

Drawing selection drawing 10



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